



Upper Extremity Return to Duty Testing

This Return to Duty Testing program is designed to return the individual to their activities as quickly and safely as possible. Modifications to the testing procedure may be necessary dependent on physician specific instruction, location of repair, concomitant injuries or procedures performed. This evidence-based program is criterion-based; time frames will vary depending on many factors- including patient demographics, goals, and individual progress. This is designed to determine the readiness of the patient/client to return to full sport/ activity participation. The therapist may modify the program appropriately depending on the individual's goals and readiness for activity.

General Guidelines/ Precautions:

- Patient should have progressed through the guidelines associated with their procedure/injury
- Typical timeframe for labral repairs to begin is 6+ months, per MD recommendations
- Timeframe for Rotator cuff repair is 10-12 months, per MD recommendations
- Testing may be modified due to patient progress and tolerance to activity
- Protocols and guidelines for some tests may differ depending on patient population

Upper Extremity Return to Duty Testing

Test	Instructions	Normative Ranges	OH Athlete Ranges
DASH/Quick DASH	Outcome measure for patient/client		
ROM-both AROM and PROM measurements	Flexion, abduction, IR,ER, extension	Within 10 degrees of opposite	ER: dominant ≥ 5 degrees of non-dominant IR: within 20 degrees of non-dominant ER+IR: within 10 degrees of non-dominant
MMT-hand held dynamometer	Standing, record measurement	Within 10% of opposite	Same as isokinetics (if using dynamometer)
ASH (athletic shoulder) Test	Hand held dynamometer testing in "I"x2, "Y" "T" (180, 135, 90, 0); Prone positions	Within 10% of opposite	Dominant 100-110+% of non-dominant
Biodex Isokinetic	IR/ER: 90/180/270 per second 90-90 position for OH athletes Modified neutral for non-OH athletes	Within 10% of opposite	ER: dominant $\geq 95\%$ of non-dominant IR: dominant $\geq 105\%$ of non-dominant ER/IR Ratio: $\geq 70\%$ for dominant side
UE Closed Kinetic Chain Test	Push-up position (modified push-up position for females), hands 36" apart, count # of times patient can tap opposite supporting hand in 15 seconds	Males: ≥ 18.5 Females: ≥ 20.5	Males: ≥ 24 Females: ≥ 21
Seated Shot put-Double Arm	1Kg/2# ball, seated back supported for no compensation, measure distance	3.5 M +/- .75	
Seated Shot Put-Single arm	2Kg/2# ball, same as double arm shot put throw, measure distance	Within 10% of dominant vs non-dominant	
Core Strength-Trunk Flexor Endurance Test	Seated with hips and knees at 90 degree flexion. Fold arms across chest with back at 60 degree incline. Take away support and hold in neutral position for time. Terminate test when falls from neutral spine. Record time	90-120 seconds; Flexion test:Extension test ratio less than 1.0	
Core Strength-side plank hold	Patient is in side plank (lateral bridge) position, max hold. Elbow directly under shoulder. Record time for each side. Terminate when obvious change in spine angle, hips drop or shift forward/backward. Looking for less than 12.5" difference between sides	<12.5 second difference side to side	
Core Strength- Trunk Extensor Endurance	Prone on table with ASIS on edge of table. Support Upper Body with chair, floor, or moveable end of table. Strap client's LE to table(or use examiner body weight to hold if no straps)To start test, cross arms at chest, hold for max effort or until client can no longer maintain neutral spine extension. Record time	Flexion test:Extension test ratio less than 1.0	
Endurance Testing	Scaption 0-90 deg 3% BW, prone Y 3% BW (must break plane of table), Standing cable press 30% BW or single arm DB bench press. 60 bpm metronome, count reps to fatigue	Within 10% if non dominant side 110% if dominant side	

****NOTE:** Progression of functional activities should be performed only as pain and proper biomechanics allow. Return to sport may occur at any time during this stage as cleared by physician and as progress and goal achievement occurs.

Testing Positions:

UE Closed Kinetic Chain Test

Modified Push up position



Push up Position



ASH Test

90



135



180



0



Prone Extension Test

Starting Position



Testing Position



Seated Single arm and double arm shot put

Single Arm



Double Arm



McGill Curl up Test

Starting Position



Testing Position



Side Plank



References

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